

Abstract

A system and method for verification of a device-under-test (DUT), in particular a network device, includes a library of packet descriptors that can be expanded to yield a packet byte stream for device testing. The packet descriptors are defined by a C-based test language, such as C/C++, and can be shared by various projects. Each packet descriptor has a unique identifier that allows retrieval of a specific packet descriptor from the library based on the identifier for comparison with the packets processed by the DUT and verification of the DUT. Packet descriptors can be arranged in the form of queues and flows supporting standard and custom network protocols. Flows can be merged and/or aggregated, allowing statistical evaluation of network traffic.